

NEOS result and reactor SBL- ν project

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To verify the possible existence of a light sterile neutrino, NEOS measured the inverse beta decay spectrum of reactor antineutrino at 24 m distance from a reactor core which has 2.8 GW thermal power. We found no strong evidence of active-to-sterile neutrino oscillation and set up new limits for the 3+1 hypothesis around $\Delta m^2 \sim 1 \text{ eV}^2$. We are proposing a dedicated facility for various neutrino experiments at a commercial reactor to be built in the future.

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